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CURRENT INDUSTRIAL REPORTS

Rubber and Plastics Hose and Belting



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SUMMARY OF FINDINGS

In 1984, the total value of manufacturers shipments of rubber and plastics hose and belting increased 18 percent to \$2,153.7 million from the 1983 total of \$1,823.0 million. Rubber and plastics belts and belting increased 17 percent in 1984 to \$846.0 million compared to \$722 million in 1983. Rubber

hose increased 19 percent in 1984 to \$1,291.6 million compared to \$1,087.3 million in 1983.

The statistics in the publication are based on a survey of all known manufacturers' of rubber and plastics hose and belting products and represent total U.S. shipments of these products. A complete description of the survey methodology and related information appears on page 5.

Table 1. VALUE OF SHIPMENTS OF RUBBER AND PLASTICS HOSE AND BELTING: 1982 TO 1984

(Millions of dollars)

Product code	Product description	MA30B		
		1984	1983	1982
	Rubber and plastics hose and belting.....	2,153.7	1,823.0	1,717.3
30411	Rubber and plastics belts and belting, flat.....	313.0	259.1	289.9
30412	Rubber and plastics transmission belts and belting other than flat.....	533.0	462.9	434.9
30413	Rubber hose, mandrel made and all hydraulic.....	351.2	303.1	283.6
30414	Rubber hose, long length, nonhydraulic, except garden.....	243.0	222.7	174.2
30415	Rubber and plastics garden hose.....	151.6	107.7	107.6
30416	All other rubber and plastics hose n.e.c.....	545.8	453.8	414.2
30410	Rubber and plastics hose and belting n.s.k.....	16.1	13.7	12.9

N.e.c. Not elsewhere classified. N.s.k. Not specified by kind.

Address inquiries concerning these figures to U.S. Department of Commerce, Bureau of the Census, Industry Division, Washington, D.C. 20233, or call Nathaniel A. Shelton, (301) 763-5547.
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Table 2. QUANTITY AND VALUE OF SHIPMENTS OF RUBBER AND PLASTICS HOSE AND BELTING: 1984 AND 1983

(Value in millions of dollars)

Product code	Product description	Unit of measure	Number of companies	1984		1983	
				Quantity	Value	Quantity	Value
3041- --	Rubber and plastics hose and belting.....		(NA)	(X)	2,153.7	(X)	1,823.0
30411 --	Rubber and plastics belts and belting, flat.....	Million lbs..	(NA)	158.6	313.0	137.0	259.1
30411 03	Conveyor and elevator, light weight.....	..do.....	22	34.9	100.1	33.6	83.8
30411 05	Conveyor and elevator, heavy duty.....	..do.....	17	105.1	167.9	83.5	131.2
30411 13	Transmission, flat.....	..do.....	16	6.5	24.7	5.5	25.5
30411 16	Other flat rubber and plastics belts and belting.....	..do.....	11	12.1	20.3	14.4	18.6
30412 --	Rubber and plastics transmission belts and belting, other than flat.....	Million units	(NA)	207.4	533.0	189.7	462.9
30412 25	Motor vehicles.....	..do.....	6	(D)	(D)	(D)	(D)
30412 31	Industrial, except fractional.....	..do.....	8	37.2	197.3	33.4	170.5
30412 41	Agricultural, except fractional.....	..do.....	4	3.0	22.6	3.0	23.4
30412 51	Fractional horsepower.....	..do.....	9	41.8	63.7	36.8	54.3
30412 89	All other rubber and plastics belts and belting, other than flat.....	..do.....	3	(D)	(D)	(D)	(D)
30413 --	Rubber hose, mandrel made and all hydraulic.....	Million feet.	(NA)	355.2	351.2	311.0	303.1
30413 12	Textile:						
30413 12	Hydraulic.....	..do.....	13	109.9	71.5	93.4	57.9
30413 14	Other.....	..do.....	22	70.9	76.4	76.1	78.3
30413 16	Wire:						
30413 16	Hydraulic.....	..do.....	12	133.2	142.6	114.3	125.9
30413 18	Other.....	..do.....	14	41.2	60.7	27.2	41.0
30414 --	Rubber hose, long length, nonhydraulic, except garden.....	Million feet.	(NA)	787.3	243.0	723.4	222.7
30414 51	Textile.....	..do.....	15	787.3	243.0	723.4	222.7
30414 53	Wire.....	..do.....	1				
30415 --	Rubber and plastics garden hose.....	Million feet.	(NA)	815.4	151.6	607.6	107.7
30415 61	Plastics, including perforated sprinkler.....	..do.....	8	730.9	134.1	549.6	96.1
30415 63	Rubber.....	..do.....	6	84.5	17.5	58.0	11.6
30416 --	All other rubber and plastics hose n.e.c.....	Million feet.	(NA)	438.1	545.8	349.8	453.8
	Rubber:						
	Wrapped reinforced:						
	Handbuilt:						
30416 33	Wire.....	..do.....	22	9.6	41.2	9.0	33.3
30416 35	Nonwire.....	..do.....	17	3.7	11.3	2.9	8.9
30416 39	Machine.....	..do.....	17	14.4	41.6	12.9	36.1
	Circular woven jacket:						
30416 42	Single jacket.....	..do.....	8	22.1	18.7	21.9	17.4
30416 44	Double jacket.....	..do.....	7	17.4	18.4	16.5	16.4
30416 63	Braided or loomed, helical reinforced.....	..do.....	13	14.9	34.1	15.9	40.3
30416 74	All other rubber hose, except garden.....	..do.....	17	155.1	254.1	133.6	212.3
	Plastic hose, except garden:						
30416 82	Hydraulic.....	..do.....	9	45.5	41.1	38.1	34.5
30416 84	Nonhydraulic.....	..do.....	16	155.4	85.3	99.0	54.6
30410 00	Rubber and plastics hose and belting n.s.k., typically for establishments with 20 employees or more.....						
30410 02	Rubber and plastics hose and belting n.s.k., typically for establishments with less than 20 employees.....		(NA)	(X)	16.1	(X)	13.7

(D) Data withheld to avoid disclosing figures for individual companies. (NA) Not available. N.e.c. Not elsewhere classified. N.s.k. Not specified by kind. Revised by 5 percent or more from previously published figures. (X) Not applicable.

Table 3. SHIPMENTS, EXPORTS, IMPORTS, AND APPARENT CONSUMPTION OF RUBBER HOSE AND BELTING: 1984 AND 1983

(Value in millions of dollars)

(value in millions of dollars)

Product code	Product description	Manufac- turers' shipments	Exports of domestic merchandise ^{1 2}		Percent exports to manufac- turers' shipments ⁴	Imports for consump- tion ^{1 5 6}	Apparent consump- tion ^{4 7}	Percent imports to apparent consumption
			Value at port	Estimated producers' value ³				
1984								
3041- --	Rubber and plastics hose and belting ⁸	2,137.6	181.6	158.8	7.5	204.2	2,183.0	9.4
30411 --	Rubber and plastics belts and belting, flat.....	846.0	57.1	50.0	5.9	91.8	887.8	10.3
30412 --	Rubber and plastics transmission belts and belting, other than flat.....							
30413 --	Rubber hose, mandrel made and all hydraulic....	1,291.6	124.5	108.8	8.4	112.4	1,295.2	8.7
30414 --	Rubber hose, long length, nonhydraulic, except garden.....							
30415 --	Rubber and plastics garden hose.....							
30416 --	All other rubber and plastics hose n.e.c.....							
1983								
3041- --	Rubber and plastics hose and belting ⁸	1,809.3	157.5	137.6	7.6	137.3	1,809.0	7.6
30411 --	Rubber and plastics belts and belting, flat.....	722.0	46.0	40.0	5.5	58.9	740.9	7.9
30412 --	Rubber and plastics transmission belts and belting, other than flat.....							
30413 --	Rubber hose, mandrel made and all hydraulic....	1,087.3	111.5	97.6	9.0	78.4	1,068.1	7.3
30414 --	Rubber hose, long length, nonhydraulic, except garden.....							
30415 --	Rubber and plastics garden hose.....							
30416 --	All other rubber and plastics hose n.e.c.....							

N.e.c. Not elsewhere classified.

¹Comparison of SIC-based product codes with Schedule B export numbers and TSUSA import numbers is shown in table 4.²Source: Bureau of the Census report EM 546, U.S. Exports.³These values were derived by use of adjustment factors to exclude freight, insurance, and other charges incurred in moving goods to the point of exports. This adjustment is made to convert the values to an approximation of the producers' value of exported goods. Current adjustment factors are based on data for 1981 which are published in Origin of Exports of Manufactured Products M81(AS)-5, appendix B. This adjustment factor for this report is 0.8750.⁴Value calculations are based on the estimated producers' value of exports.⁵Source: Bureau of the Census report IA 245-X, U.S. Imports for Consumption and General Imports.⁶Represents the c.i.f. (cost, insurance and freight) valued at the first port of entry in the United States plus U.S. import duties.⁷Apparent consumption is derived by subtracting exports from the total of shipments plus imports.⁸The rubber and plastics hose and belting total shown here excludes product codes 30410 00 and 30410 02; therefore it differs from the total shown on tables 1 and 2.

Table 4. COMPARISON OF SIC-BASED CODES, SCHEDULE B EXPORT NUMBERS, AND TSUSA IMPORT NUMBERS: 1984

Product code	Product description	Export number ¹	Product description	Import number ²	Product description
30411 -- 30412 --	Rubber and plastics belts and belting	773.3820 773.3840 773.3870 773.3880	Belts and belting, for machinery, of rubber or plastics: Conveyor and elevator belting Other: Designed for motor vehicle Belting and belts, flat for machinery, of rubber or plastics Belting and belts, for machinery, of rubber or plastics n.e.c.	358.0210	Belts and belting, for machinery, of rubber and plastics
				358.0290	V-belts of cotton or of cotton and rubber or plastics
				358.0300	V-belts of other textile fibers or of other textile fibers and rubber or plastics
				358.0610	V-belts of textile fibers or textile fibers and part rubber, Canada
				358.0690	Other machine belting and belts cotton, part rubber, or plastics
				358.0800	Other machine belting and belts vegetable fiber, except cotton, part rubber or plastics
				358.0900	Other machine belting and belts of wool or wool and rubber or plastics woven
				358.1100	Other machine belting and belts wool or wool and rubber or plastics, except woven
				358.1400	Other machine belting and belts silk or silk and rubber and plastics
				358.1600	Other machine belting and belts manmade and rubber or plastics
30413 -- 30414 -- 30415 -- 30416 --	Rubber and plastics hose	772.6210 772.6220 772.6250 772.6280	Hose, pipe, and tubing, all the foregoing not specially provided for, of rubber or plastics, suitable for conducting gases or liquids, with or without attached fittings: Mandrel made hose, and hydraulic power hose Wrapped reinforced hose Garden hose Other	773.3520	Other machine belting and belts textile n.e.c., or textile n.e.c., and rubber or plastics
				773.3510	Machinery belts and belting of rubber or plastics n.e.c.
				772.6540	Machinery belts and belting of rubber or plastics, flat
				772.6550	Hose, pipe, and tubing all the foregoing not specifically provided for, of rubber or plastics, suitable for conducting gases or liquids, with or without attached fittings: Nonrigid
				772.6560	Reinforced with metal
				772.6570	Reinforced with other: Of polyvinyl chloride
				772.6580	Of other
				772.6590	Nonreinforced: Of polyvinyl chloride
					Of polyethylene
					Other

N.e.c. Not elsewhere classified.

¹Source: Bureau of the Census EM 546, U.S. Exports.²Source: Bureau of the Census IA 245-X, U.S. Imports for Consumption and General Imports.

DESCRIPTION OF SURVEY

Scope of Survey. This survey covers manufacturers in the United States of all hose and belting, either rubber or plastics or combinations thereof.

Survey Methodology. The statistics in this publication were collected by mail on Bureau of the Census annual Form MA308, Rubber and Plastics Hose and Belting. The survey panel includes all known producers of rubber and plastics hose and belting, approximately 120 establishments.

Reliability of Data. Survey error may result from several sources: (1) inability to obtain information about all cases in the survey; (2) response errors; (3) definitional difficulties; (4) differences in the interpretation of questions; (5) mistakes in recording or coding the data obtained; and (6) other errors of collection, response, coverage, and estimation for missing data. These nonsampling errors also occur in complete censuses. Although no direct measurement of the biases due to nonsampling errors has been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data in an effort to minimize their influence.

A major source of bias in the published estimates is due to imputing data for nonrespondents, for late reporters, and for data which fail logic edits. Missing figures are imputed based on yearly movements shown by reporting firms. Imputation generally is limited to a maximum of 10 percent for any one data cell. Figures with imputation rates greater than 10 percent are footnoted.

The imputation rate is not an explicit indicator of the potential error in published figures due to nonresponse, because the actual yearly movements for nonrespondents may or may not closely agree with the imputed movements. The range of difference between the actual and imputed figures is not precisely known, but is assumed to be small. The degree of uncertainty regarding the accuracy of the published data increases as the percentage of imputation increases. Figures with imputation rates above 10 percent should be used with caution.

Revisions to Previous Period Data. Statistics for previous years may be revised as the result of corrected data from respondents, late reports for which imputations were made as described above, or other corrections. Figures which have been revised by more than 5 percent from previously published figures are indicated by footnotes.

Adjustment for Price Change. All dollar figures included in this publication are in current dollars; i.e., they have not been adjusted for price change.

EXPLANATION OF TERMS

Quantity and Value of Shipments. The figures on quantity and value of shipments represent physical shipments of all products sold, transferred to other establishments of the same company, or shipped on consignment, whether for domestic or export sale. The value represents the net sales price, f.o.b. plant, to the customer or branch to which the products are shipped, net of

discounts, allowances, freight charges, and returns. Shipments to a company's own branches are assigned the same value as comparable sales to unaffiliated customers; i.e., the value includes an appropriate allocation of company overhead and profit. Products bought and resold without further manufacture are excluded.

Rubber. Includes products made from natural, synthetic, or reclaimed rubber.

Plastics. Includes synthetic resinous materials which are not defined as elastomers. Synthetic elastomers, which are defined as materials that, when vulcanized, will stretch repeatedly to 150 percent or more and will return rapidly and with force to its approximate original state, are classified as rubber products.

Mandrel. A form, generally of elongated round section, used for size and to support hose during fabrication and/or vulcanization. It may be rigid or flexible.

COMPARISON OF EXPORT, IMPORT, AND DOMESTIC OUTPUT DATA

The Standard Industrial Classification (SIC) system used for domestic output and the statistical export and import commodity classifications were developed independently. This results in considerable difficulty in comparing the three types of data for many commodity areas. The domestic output classification is based on type of industry; on the other hand, the export and import classification system is more materials oriented. Aside from the differences in the basic commodity classifications, there are additional problems involving import data, since there are a substantial number of imported commodities which are not produced in the United States or which are produced only in very small quantities and which, therefore, have no comparable domestic output classification. The relationships shown in this report should be considered only as approximations, since, in addition to the problems mentioned above, there are also the following problems affecting the comparability of the three sets of data.

Valuation. There are different methods of valuation for the three types of data:

- **Domestic Output**—Valued at the point of production. It includes the net sales price, f.o.b. plant, after discounts and allowances, exclusive of freight charges and excise taxes.
- **Exports**—Valued at the point of exportation. It includes the selling price, or cost if not sold, and inland freight, insurance and other charges to the export point.
Estimated producers' values of exports have also been developed. These values more closely approximate the values reported for domestic output because they exclude freight, insurance, and other charges applied from the producing plant to the export point.
- **Imports**—Valued at the first port of entry in the United States. It includes c.i.f. (cost, insurance, and freight), duty, and other charges to the import point.

Duplication in Quantity and Value of Output. Because producers' shipments of some commodities may be used as materials for incorporation into other commodities, combinations of data for such commodities may contain a certain amount of duplication. Thus, percentages of exports to output or imports to apparent consumption (output plus imports minus exports) at four-digit or broader levels may be understated. Where duplication is known to be substantial, the output data are appropriately noted in the table.

Low-Value Export and Import Transactions. Detailed commodity information is not included for individual import shipments valued at not more than \$250 or for individual export shipments valued at not more than \$500. This is believed to have only negligible effects on the statistics for the bulk of the commodities.

Manufacturers' Shipments, Not Specified by Kind. The value of manufacturers' shipments at the four-digit industry level often includes a small amount which is not distributed among the individual five-digit product classes. Export and import percentages at the more detailed levels might, therefore, be slightly overstated.

Time Lag Between Output and Exports. There will be a lag between the time a commodity is produced or shipped by the producer and the time it is actually exported, especially when intermediaries (wholesalers, exporters, etc.) are involved. Ordinarily, this type of discrepancy is insignificant in annual figures.

"Direct" vs "Total" Commodity Exports and Imports. Export and import data do not include materials which are incorporated into other more finished products and exported or imported in finished form. Thus, by showing only direct exports and imports, the relation of exports to output and imports to apparent consumption for intermediate products is considerably understated.

Used Commodities. With a few exceptions, used or rebuilt commodities are classified in the same import or export codes as is new merchandise. Percentages are thus overstated to the extent that used or rebuilt products are significant in trade.

Geographic Area of Coverage. Import and export data reflect the movement of merchandise into and out of U.S. foreign trade zones, the U.S. Virgin Islands, and the U.S. customs territory (includes the 50 States, the District of Columbia, and Puerto Rico).

HISTORICAL NOTE

Data on rubber and plastic hose and belting have been collected by the Bureau of the Census since 1973. Historical data may be obtained from Current Industrial Report available at your local Federal Depository Library. A list of these libraries may be obtained from the Bureau of the Census regional offices:

Office	Telephone
Atlanta, Georgia	(404) 881-2271
Boston, Massachusetts	(617) 223-2327
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International Trade Administration	Dave Blank	(202) 377-0128

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